

## **Scenario 1**

**A: Early Stage 1**

**B: Late Stage 1**

Baseline: Accord + VAMP San Joaquin River flows.

### Purpose:

- Establish Early/Late Stage 1 bookends from the federal agency perspective.
- Determine how the environment would fare if the EWA had no new assets.
- Determine how close to stated target supply and water quality targets the Projects get if they received all other assets.

### EWA Assets:

- 800 TAF devoted to the Accord and b(2) fish protection actions using DOI methodology
- E/I flexing
- 100 kaf from ERP flows

### Project Assets:

- All other Early/Late Stage 1 assets

## **Scenario 2:**

Early Stage 1

Same as Scenario 1 for Early Stage 1, except shift some assets from Projects to EWA. Allows EWA to shift closer to biological bar, but leaves users farther from targets.

EARLY STAGE 1 ASSETS	ASSET APPLICATION
<b>INCREASED BANKS PUMPING CAPACITY</b> ✓	♦ Increase pumping capacity to 6,600 cfs Nov – March + 1/3 SJR. ♦ Increase pumping capacity to 7,100 cfs July - Sept
<b>ACCESS TO SURPLUS PROJECT CAPACITY</b>	♦ Access to San Luis Reservoir and non-project capacity
<b>MARKETS (WILLING SELLER)</b> ✓	♦ Purchase of water for multiple purposes ♦ Purchase of in-Delta water ♦ Purchase PG&E reoperation water ♦ Source shifting
<b>IMPROVED TRACY FF SCREENS</b>	♦ Screens operate to reduce entrainment
<b>ERP</b> ✓	♦ Acquired water (100TAF) for enhanced instream flow conditions used for in-Delta purposes
<b>JOINT POINT OF DIVERSION</b> ✓	♦ Implement JPOD
<b>REGULATORY FLEXIBILITY</b> ✓	♦ Change the application of the E/I ratio
<b>GROUNDWATER STORAGE</b> ✓	♦ Kern Water Bank ♦ Semitropic ♦ Options
<b>DEMAND SHIFTING</b> ✓	♦ Core Peak: shift demand to alternative source
<b>RIGHT TO BORROW SURPLUS CAPACITY AND SURPLUS WATER</b> ✓	♦ Borrow surplus capacity from project and non-project reservoirs
<b>RESERVOIR REOPERATION</b>	♦ Coordinate/optimize operation of reservoirs to increase overall system flexibility
<b>ACQUISITION OF DELTA ISLANDS</b>	♦ Reduce application and subsequent run-off/seepage of pesticides
<b>MANAGE DISCHARGE FROM DELTA ISLANDS</b>	♦ Relocate/reroute Delta agricultural drains or hold water for discharge on outgoing tides or for high flow periods to manage salinity, selenium, TDS
<b>CONTROL ALGAL GROWTH IN CCF</b>	♦ Needs definition
<b>INTERTIE</b> ✓	♦ 400 cfs capacity
<b>BLENDING</b>	♦ Use available supplies to reduce diversions at some periods and blend with higher quality water to improve water quality
<b>CROP SHIFTING</b>	♦ Shift to less water intensive crops during certain time periods

LATE STAGE 1 ASSETS	ASSET APPLICATION
INCREASED BANKS PUMPING CAPACITY ✓	<ul style="list-style-type: none"> <li>◆ Increase pumping to 8,500 cfs</li> <li>◆ Increase pumping to 10,300 cfs</li> </ul>
JOINT POINT OF DIVERSION ✓	<ul style="list-style-type: none"> <li>◆ Implement JPOD</li> </ul>
EFFICIENCY ✓	<ul style="list-style-type: none"> <li>◆ Statewide ULFT Program</li> <li>◆ Other ag/urban reclamation, recycling, efficiency programs</li> </ul>
GROUNDWATER SUBSTITUTION PROJECTS ✓	<ul style="list-style-type: none"> <li>◆ <u>Southern Sacramento County ?</u></li> <li>◆ <u>East San Joaquin Basin?</u></li> <li>◆ <u>Gravelly Ford?</u></li> <li>◆ <u>Madera Ranch?</u></li> </ul>
GROUNDWATER STORAGE ✓	<ul style="list-style-type: none"> <li>◆ Butte Basin Drought Water Bank?</li> <li>◆ Yolo County?</li> <li>◆ West Central Basin?</li> </ul>
BLENDING	<ul style="list-style-type: none"> <li>◆ Use available supplies to reduce diversions at some periods and blend with higher quality water to improve water quality</li> </ul>
IN-DELTA STORAGE ✓	<ul style="list-style-type: none"> <li>◆ Use of Web and Bacon Islands (120 TAF each - no direct connect to CCF)</li> </ul>
SHASTA DAM EXPANSION ✓	<ul style="list-style-type: none"> <li>◆ Raise Shasta Dam to increase storage capacity 290,000 AF</li> </ul>
INTERTIE ✓	<ul style="list-style-type: none"> <li>◆ 400 cfs capacity</li> </ul>
SHIFTING REFUGE SUPPLIES	<p>Investigate the following:</p> <ul style="list-style-type: none"> <li>◆ Diversify sources of water for refuges</li> <li>◆ Borrow acquired refuge water for EWA</li> <li>◆ Increase conveyance efficiency</li> <li>◆ Use refuges as small-scale storage projects</li> </ul>
ALTER FLOOD CONTROL DIAGRAMS	<ul style="list-style-type: none"> <li>◆ May be limited to small scale efforts on the San Joaquin and Stanislaus Rivers</li> <li>◆ Pursue other small-scale projects in Stage 1 in addition to above efforts</li> </ul>
FLEXING EXISTING STANDARDS ✓	<ul style="list-style-type: none"> <li>◆ Potential/ability varies depending on regulatory process, standard and environmental conditions</li> </ul>